

ABSTRACT

The work performance of Lanka buffaloes was investigated using a loading cart fitted with a load cell and a signal integrator. Animals were made to pull a loading cart on an oval track with a hard flat surface. Five pull levels were selected to cover the range of forces encountered by the animals under normal field conditions. The power output increased with increasing pull levels upto 18 percent of average body weight. The maximum value of average power recorded was 528 Watts and the corresponding total work done during a 20 minute period was 519×10^3 J. As the pull level was further increased, the power output showed a significant decline. However, the total work done did not change noticeably. These results combined with the changes of physiological parameters observed during the trials, suggest that the animals reach the point of exertion at around 18 percent pull level. These results propose that a better power and work output from the animals could be obtained at around 14 percent pull level.

Key Words: Water Buffaloes, Draft Power, Work Performance